REMARKS

Claim 1 and 3-7 are amended by the current amendment. Claims 1-7 are pending in this application.

35 U.S.C. § 112

Claims 1-7 stand rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the enablement requirement. The Office Action indicates that the claims cover steps for production of acrylic acid without explicitly describing an order for the steps. While the Applicant asserts that the claims as written, when read in conjunction with the specification would allow one of ordinary skill in the art to practice the invention as claimed, the claims are amended to further clarify the order of the steps.

The Applicant submits that the claims do not suggest that the steps can be performed in any random order because certain elements must have an antecedent basis in an earlier step before it is recited again in later steps. For example, "an acrylic acid-containing gas" must first be obtained in step before it can be introduced into an absorbing column in step C. To avoid confusion, the phrase "a step for" is deleted in claim 1 and the term "subsequently" is added to indicate that step (f) is to be performed prior to step (g). The Applicant respectfully suggests that one of ordinary skill in the art could practice the invention as currently claim and requests removal of this rejection.

Claims 1-7 are also rejected under 35 U.S.C. § 112, second paragraph. Claim 1 is rejected for two reasons. First, the Office Action indicates that the term "oligomer" in claim 1 step ii) lacks antecedent basis. Claim 1 is amended to now recite "acrylic acid oligomer" which has antecedent basis in step (g). Second, the Office Action indicates that is unclear as to what is being supplied with in step ii) in claim 1. Claim 1 is amended to clarify the stages identified in i). Specifically, step i) now makes it clear that a polymerization inhibitor is introduced to the distillation column at any point except at the stage for supplying raw material to the distillation column or the stage for supplying a reflux.

Claim 4 and 6 are rejected for reciting that a tank and cooler are installed but not reciting the function or placement of the tank and cooler. Claims 4 and 6 are amended to recite that the

method further comprises cooling the aqueous acrylic acid-containing solution in a tank and/or a cooler and that the cooling takes place between steps b and i. The term installed is deleted.

Claims 5 and 7 stand rejected for not being clear if the claim cover polyacrylic acid or its salt. The claims are amended to recite either the acid or its salt.

35 U.S.C. § 102

Claims 1, 2, 4 and 7 stand rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 6,252,110 to Uemura et al. (Uemura). This rejection is traversed. Uemura does not teach key elements recited in the claimed invention.

Specifically Uemura does not disclose or even suggest the steps of i) or ii). The Office Action generally cites the reference in Uemura of recirculating at least a part of the bottom liquid of said pyrolyzing tank into said thin film vaporizer and/or distillation column but does not specifically cite where step i) or ii) are disclosed. Claim 1 is amended to further clarify the requirements of step i) and ii) and to provide antecedent basis for those elements.

As for step i), Uemura mentions polymerization inhibitor only once at column 4, line 4 as a substance that may possibly be present in the bottom liquid but does not indicate at which point the inhibitor is to be added. Presumably, because it does not specificy, Uemura contemplates adding the polymerization inhibitor at a stage consistent with the prior art. Claim 1 specifically identifies in step i) the addition of the inhibitor at stages other than a stage for supplying a raw material to a distillation column and the stage for supplying and aqueous absorbing solvent into an acrylic acid absorbing column, which are different than those identified in the prior art. Step i) in claim 1 is one of two possible steps which are used to improve the preparation process, and are not disclosed or suggested in Uemura.

The other possible step in claim 1 is step ii). Step ii) as presently claimed recites "supplying the acrylic acid recovered by thermally decomposing said acrylic acid oligomer to said step (e)" Uemura does not disclose such a step. Rather Uemura discloses recirculating at least a part of bottom liquid into the recovery column; In contrast, the present claims recite supplying the acrylic acid recovered from the oligomer into the crude acrylic acid obtained by dehydration. Recirculating the bottom liquid into the recovery column is a different step from

supplying the acrylic acid recovered from the oligomer into the crude acrylic acid obtained by dehydration. Accordingly, the invention defined by the present claims is not anticipated by Uemura.

35 U.S.C. § 103

Claims 3, 5 and 6 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Uemura. For the reasons discussed above, Uemura does not disclose or suggest key elements of the claims from which these claims depend and is therefore not obvious in view of Uemura.

A prompt and favorable action on the merits is earnestly solicited. It is believed that no fee is required. The Commissioner is authorized to charge any deficiency or credit any overpayment to Deposit Account No. 13-2165.

Respectfully submitted,

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